

WHAT IS CLAIMED IS:

1. An injection mold having a hot-runner mold, comprising:
 - a cavity mold which has a gate of a sprue of a cavity in a concave formed in a bottom thereof, a peripheral portion of the gate being formed into a flat face; and
 - a hot-runner mold which is provided with a needle-valve-nozzle having an end face formed into a flat face, the hot-runner mold being arranged on the cavity mold with the end of the needle-valve-nozzle inserted into the concave, wherein the nozzle includes: a nozzle body having an opening formed in the end face of the nozzle; and a short cylindrical tip that is formed of metal having lower thermal conductivity than the nozzle body and has a flat end face and a nozzle orifice in the center of the end face, the tip being slidably fitted in the opening formed in the end face of the nozzle in such a way that its end face is protruded from the end face of the nozzle and directly nozzle-touched the gate of the sprue of the cavity.
- 20 2. The injection mold having a hot-runner mold as claimed in claim 1, wherein the tip has an inner peripheral wall face extending to the nozzle orifice, the inner peripheral wall face being formed in a conical face having the same angle as the conical end portion of a needle mounted in the needle-valve-nozzle and being fitted on the end portion of the needle to close the nozzle orifice and to support the tip.
- 25 3. The injection mold having a hot-runner mold as claimed in claim 1 or claim 2, wherein the nozzle body is made of steel for a mold and the tip is made of a titanium alloy having lower thermal conductivity than the steel for a mold.